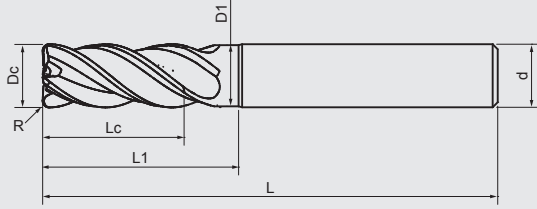


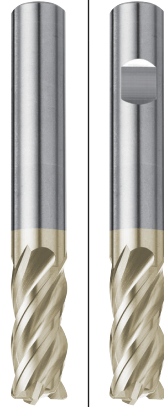
# F652SX 超微粒鎢鋼塗層難削材用R角立銑刀

## End Mills With Corner Radius For Difficult To Cut Materials

Designed with two variable helix geometry and two unequal flutes. 兩個不等螺旋角。  
 Sharp cutting edge is good for cutting toughness materials. 兩個不等分割刃。  
 Designed with high removal cutting geometry. 刀口鋒利適用切割韌性材料。  
 Improved cutting edge strength with corner radius. 高移除率刀形幾何設計。  
 Applicable for profile surface machining. 刀尖帶有R角亦可增加刀尖強度。  
 Good wear resistance and lubricating effect with Nano multilayer coating. 可用於曲面輪廓切削應用方法。  
 採用奈米多層膜塗層具有優異的潤滑及耐磨性。



**VHM Carbide**   **AITiXN+ZrN SX**   38°   不等   N   78°   R   **Stainless Titanium Nickel**



Sharp cutting edge is suitable for cutting stainless steel, titanium, nickel and high temp alloys... etc. 刀口鋒利適用切割於不銹鋼、鈦合金、鎳基合金及高溫合金...等材料。  
 Application for roughing and finishing cutting in different materials. 適用於粗、精切削應用於各種材料。

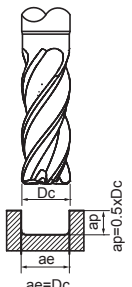
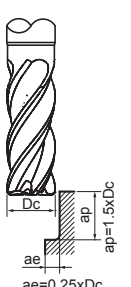
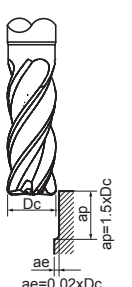
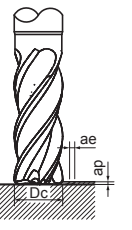
**M**  
**S**

### DIN 6527 Standard Length

Dc 0 -0.02	R ±0.01	Lc mm	L mm	d h5	L1 mm	D1 mm	F652SX HA	F652SX HB				
3	R0.2	8	57	6	14	2.8	●	●				
4	R0.2	11	57	6	16	3.8	●	●				
5	R0.2	13	57	6	18	4.8	●	●				
6	R0.2	13	57	6	20	5.8	●	●				
8	R0.2	19	63	8	26	7.7	●	●				
10	R0.2	22	72	10	31	9.7	●	●				
12	R0.2	26	83	12	37	11.6	●	●				
16	R0.2	32	92	16	43	15.5	●	●				
20	R0.2	38	104	20	53	19.5	●	●				
3	R0.5	8	57	6	14	2.8	●	●				
4	R0.5	11	57	6	16	3.8	●	●				
5	R0.5	13	57	6	18	4.8	●	●				
6	R0.5	13	57	6	20	5.8	●	●				
8	R0.5	19	63	8	26	7.7	●	●				
10	R0.5	22	72	10	31	9.7	●	●				
12	R0.5	26	83	12	37	11.6	●	●				
16	R0.5	32	92	16	43	15.5	●	●				
20	R0.5	38	104	20	53	19.5	●	●				
6	R1	13	57	6	20	5.8	●	●				
8	R1	19	63	8	26	7.7	●	●				
10	R1	22	72	10	31	9.7	●	●				
12	R1	26	83	12	37	11.6	●	●				
16	R1	32	92	16	43	15.5	●	●				
20	R1	38	104	20	53	19.5	●	●				
6	R2	13	57	6	20	5.8	●	●				
8	R2	19	63	8	26	7.7	●	●				
10	R2	22	72	10	31	9.7	●	●				
12	R2	26	83	12	37	11.6	●	●				
16	R2	32	92	16	43	15.5	●	●				
20	R2	38	104	20	53	19.5	●	●				
12	R3	26	83	12	37	11.6	●	●				
16	R3	32	92	16	43	15.5	●	●				
20	R3	38	104	20	53	19.5	●	●				

切削條件

Cutting Conditions

F652SX									
	cutting speed Vc (m/min)	feed per tooth fz(mm)	cutting speed Vc (m/min)	feed per tooth fz(mm)	cutting speed Vc (m/min)	feed per tooth fz(mm)	cutting speed Vc (m/min)	feed per tooth fz(mm)	
<b>Stainless Steel Materials</b>									
M	GR8-1 Ferritic、Martensitic	80	0.003xDc	90	0.004xDc	110	0.003xDc	130	0.003xDc
	GR8-2 Austenitic	70	0.003xDc	80	0.003xDc	90	0.003xDc	100	0.003xDc
	GR8-3 Austenitic-ferritic	40	0.002xDc	50	0.003xDc	60	0.002xDc	70	0.002xDc
	GR8-4 Austenitic-ferritic Heat-resistant	30	0.002xDc	40	0.003xDc	40	0.002xDc	50	0.002xDc
<b>Cast Iron Materials</b>									
	GRI5 Titanium	35	0.002xDc	40	0.002xDc	40	0.002xDc	45	0.002xDc
<b>Nickel Materials</b>									
S	GRI6-1 Nickel	30	0.002xDc	35	0.002xDc	35	0.002xDc	40	0.002xDc
	GRI6-2 cobalt-base alloys	30	0.002xDc	35	0.002xDc	35	0.002xDc	40	0.002xDc
	GRI6-3 Iron-based alloy	30	0.002xDc	35	0.002xDc	35	0.002xDc	40	0.002xDc
<b>Heat-resistant Steel Materials</b>									
	GRI7 Heat-resistant Steel	30	0.002xDc	35	0.002xDc	35	0.002xDc	40	0.002xDc

All cutting data serve for orientation only and should be adapted individually to the technical conditions on location

1. Please work with good rigidity / high precision facilities and collet chuck.
  2. Please choose proper cutting fluid.
  3. The cutting data is reference value only. Please adjust it according to your real working conditions.
  4. If RPM is lower the reference value, the Feed rate [fz] and RPM should be reduced by the same proportion.
  5. If vibration occurs during cutting, please reduce cutting parameter.
1. 請使用剛性好、精度高的設備和夾具。
  2. 請選擇適用於工件材料的切削液。
  3. 此切削條件表中的數值為切削條件的基準值，實際加工時，請考慮加工形狀、目的、使用機台等因素，對切削條件進行調整。
  4. 如果機台轉速低於表中所列數值，則進給速度應與轉速按同一比例降低。
  5. 切削加工時如果發生振顫，請降低切削條件。